

SDMS US EPA REGION V -1

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DOCUMENTS.**

EXPANDED
SITE INSPECTION WORK PLAN

FOR:

Sauget Sites Area 2

PREPARED BY

PRE-REMEDIAL UNIT
DIVISION OF LAND POLLUTION CONTROL
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62794

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CONFIDENTIAL

JAN 11 1994

IDENTIFICATION
SECTION

I. SITE INFORMATION

I. GENERAL

Site Name: Sauget Sites Area 2-

- * ILD 000672329 - Site O - Village of Sauget Wastewater Treatment Plant
- * ILD 984809293 - Site P - P.T.s Showclub/Sauget-Monsanto Landfill
- * ILD 000605790 - Site Q - Sauget Municipal/Sauget & Company Landfill
- * ILD 980606982 - Site R - Sauget Toxic/Rivers Edge Landfill

Site Location: Various locations west of Illinois Route 3
Sauget, IL 62201, St. Clair County
Please refer to map.

Work Plan prepared by: Kimberlee A. Hubbert

Work Plan approved by: *Eric D. Vega* 5/4/95

Estimated inspection date: February 1994

II. THE ASSIGNMENT (briefly describe the objectives of the inspection and how they are going to be accomplished).

The purpose of an Expanded Site Inspection is to document site
contamination, migration pathways and targets which may be adversely
affected by these contaminants Soil/sediment and leachate samples will
be collected during the ESI for analysis. The results will be used to
evaluate the impact that past disposal practices are having on
the surrounding environment and population.

III. SITE DESCRIPTION (briefly describe the site, including location, unique geological features, source(s) of contamination, methods of disposal and current status of activities).

Sauget Sites Area 2 consists of 4 separate sites within the same geographical area. The 4 sites are located
west of Illinois Route 3 within the village of Sauget, Illinois and consist of Site P - the Sauget-Monsanto
landfill, Site O - the former village of Sauget Wastewater Treatment Plant settling ponds, Site Q - Sauget
and Company landfill, and Site R - Sauget Toxic Dump or River's Edge landfill. The sites are in an area

known as the American Bottoms. ISGS well logs indicate that the upper stratigraphy in this area consists of 70-120 feet of unconsolidated alluvium and glacial outwash overlying Mississippian-aged limestone and sandstone formations (Ste. Genevieve and St. Louis Limestones). The valley fill deposits are composed of two formations, the uppermost being the Cahokia Alluvium followed by the Mackinaw Member of the Henry Formation.

IV. SITE HISTORY (briefly describe the history of the site including previous owners, reported injuries, complaints, govt. action).

Site O- Site consists of 4 inactive sludge dewatering lagoons and a separate area of contamination and is approximately 23 acres in size.

The Sauget Wastewater Treatment Plant had been in operation in some form from 1952 until the mid 1980's when the new American Bottoms Regional Wastewater Treatment Plant went into operation. The old plant treated effluent from area industries and sanitary sewage from the village of Sauget. The plant received approximately 10 million gallons per day (MGD) of wastewater with industrial influent originating at the following:

Monsanto Chemical, Cerro Copper, Sterling Steel Foundry, Amax Zinc, Rogers Cartage, Edwin Cooper, and Midwest Rubber. Effluent from the plant was directed to a National Pollutant Discharge Elimination System (NPDES) permitted discharge point in the Mississippi River.

The treatment plant had a long history of NPDES permit violations due to the chemical quality of the plant effluent. A USEPA study conducted in 1982 concluded that the treatment plant wastewater contributed a substantial volume of priority toxic pollutants annually to the Mississippi River. According to a "Notification of Hazardous Waste Site" form submitted to the USEPA in 1981, the former lagoons were used for disposal of clarifier sludges from 1965 to approximately 1978. The lagoons were designed to drain liquid from the sludge. The lagoons were not artificially lined, and were apparently excavated into the Henry Formation Sand. Initially, the sludge was not treated in any way after being placed in the lagoons.

After a period of time, lime was used for neutralization.

Several sampling events have occurred at Site O in the past. Sample results revealed the presence of volatiles and semi-volatiles, including pentachlorophenol, PCBs, and phenol.

An incident occurred in 1984 in which a team excavating a trench for a pipeline to run from the old wastewater treatment plant to the new plant uncovered a black, tar-like substance with a strong solvent odor. Envirodyne Engineers of St. Louis collected two samples of the waste material which revealed the presence of PCBs, phenol, oil and grease and benzene. The exact location of the sampling is not known. However, it is believed to be in the southern portion of the lagoons.

Site P- According to information available to the Agency, P.T.s Showclub/Sauget-Monsanto Landfill operated as an IEPA permitted landfill from January, 1973 until 1984. In 1972, Paul Sauget of Sauget and Company entered into a lease agreement with Union Electric Company to operate a waste disposal facility at this site. In January of 1973, IEPA issued an operating permit to Sauget and Company to accept only non-hazardous solid waste from Monsanto. Sauget and Company subsequently applied for, and was granted, a supplemental permit in 1974 which allowed acceptance of general waste and diatomaceous earth filter cake from Edwin Cooper, Incorporated (now Ethyl Corporation).

The IEPA began conducting routine inspections of the facility in 1974, at which time no violations were evident. In October, 1975, an inspector observed a small amount of yellowish, tar-like liquid in an area adjacent to several crushed fiber drums which were labelled "Monsanto ACL-85, Chlorine Composition." Sauget and Company and Monsanto were subsequently notified of this permit violation, and the matter was not further addressed. In December, 1977, an inspection revealed the disposal of approximately 25 metal containers (12-15 gallon) full of phosphorus pentasulfide (P₂S₅), a flammable solid.

Site Q- Site Q is the Sauget and Company Landfill, an inactive waste disposal facility operated by Sauget

and Company between 1966 and 1973. The site is approximately 90 acres in size and includes a southern "leg". The site is located on the east bank of the Mississippi River, is on the river side of a U.S. Army Corps of Engineers flood control levee. A portion of Site Q is also situated immediately east of Site R, commonly known as the Sauget Toxic Dump, a chemical waste disposal facility owned by the Monsanto Chemical Company.

Site Q was operated without a permit from IEPA, although registration with the Illinois Department of Public Health was obtained for the north site in 1967, prior to the formation of the IEPA. The site is presently covered with black cinders, which is an unsuitable cover material due to its high permeability. Site Q is presently owned by Eagle Marine Industries. Flood waters covered most all of Site Q during the summer of 1993.

Disposal operations at Site Q began in approximately 1966 in the northernmost portion of the property. A Union Electric Company flyash pond existed at the site in an area immediately south of Monsanto's chemical dump. IEPA inspections in the early 1970's documented several violations of the Illinois Environmental Protection Act, including open burning, use of unsuitable cover materials (cinders and flyash), and acceptance of liquid chemical wastes. Septic tank pumpings were also accepted at the site from approximately 1968 to 1972, and were apparently co-disposed with general municipal refuse.

In April, 1971, a complaint was filed by IEPA against Sauget and Company for the violations mentioned above. The company was ordered to cease and desist open burning, accepting liquid chemical wastes, open dumping, and use of cinders and flyash as cover material. In July, 1972, a smoldering underground fire was observed by IEPA inspectors at the site. The fire continued to smolder until October, 1972 despite repeated attempts to extinguish it. Underground fires were a continuing problem, as documented by later IEPA inspection reports. In the spring of 1973, flood waters from the Mississippi River inundated Site Q. This condition persisted into the fall, and operations at the site were discontinued. Exposed refuse was observed being carried downstream in the river at that time.

Sauget and Company filed a permit application to IEPA in 1972 for a proposed extension to the existing

landfill. The proposed extension was located south of the Alton and Southern railroad tracks, and will be referred to as the south site. IEPA denied issuance of a permit for this extension several times, as Sauget and Company had filed repeated applications. Although approval of the south site was never issued, disposal operations continued in this area.

Several sampling events have occurred onsite at Q, with soil, leachate, and groundwater samples taken at various times. Analytical results of the samples revealed the presence of elevated levels of various metals, volatiles, semi-volatiles and PCBs.

II. SAFETY CONSIDERATIONS

I. PHYSICAL HAZARDS AT SITE (briefly describe any physical hazards that the inspection team may encounter at the site).

Since sampling will take place in February, cold stress may be a factor in sampling, posing a potential threat to personnel. Procedures will be followed in order to protect the team from any possible hazards. Rough terrain will be encountered at some sites.

II. CHEMICAL HAZARDS AT SITE (briefly identify those chemicals that are known or are suspected to be present, include their state and physical characteristics).

Previous samples taken at the site have revealed surface and subsurface contamination. The Agency drill rig will be assisting in subsurface sampling. Ambient air monitoring at various places at the sites have revealed the presence of organic volatiles up to 150 units above background.

III. DERMAL AND RESPIRATORY PROTECTION (identify the level of personal protection that will be used, including anticipated modifications).

Level D protection will be used at all times, with continuous air

monitoring during the sample collection. If an increase occurs, the
following will be implemented:0-5 units over background Level C
5-50 units over background Level B
50-500 units over background Level A

IV. EMERGENCY INFORMATION

Nearest Hospital: Centreville Township Hospital Ph > 618/332-3060

Hospital Location: 5900 Bond Avenue Emerg. > 911
Centreville, Illinois

Ambulance Service: Bruns Ambulance Service Emerg. > 911

Fire Service: Sauget Fire Department Emerg. > 618/332-6600
Non-Emerg. > 618/332-6700

Police: Village of Sauget Emerg. > 911
Non-Emerg. > 618/332-6500

State Police (Collinsville)

III. FIELD ACTIVITIES

I. TEAM ASSIGNMENTS

NAME	Responsibility
<u>Kimberlee Hubbert</u>	<u>Project Manager</u>
<u>Pete Sorensen</u>	<u>Chain of Custody</u>
<u>Mark Waggoner</u>	<u>Sampler</u>
<u>Tom Crause</u>	<u>Sampler</u>
<u>Scott Davis</u>	<u>Sampler</u>
<u>Greg Dunn</u>	<u>Safety Officer/Geologist</u>
<u>Paul Mason</u>	<u>Drill Rig</u>

Bill Walkenbach

Drill Rig

Bob Mathis

Drill Rig

II. FIELD WORK PROPOSED
(check all that apply)

Activity

Procedures

- ☒ Ambient Air Sampling (OVA,HNU,etc.) IEPA Methods Manual pp.19-23
- ☐ Groundwater Sampling IEPA Methods Manual pp.1-5
- ☐ Surface Water Sampling IEPA Methods Manual pp.6-10
- ☒ Soil/Sediment Sampling IEPA Methods Manual pp.13-18
- ☐ Tap Water Sampling IEPA Methods Manual pp.11-12
- ☐ Slope Determinations IEPA Methods Manual pp.24-25
- ☐ Water Level Measurements IEPA Methods Manual p.31
- ☒ Perimeter Survey IEPA Methods Manual p.33
- ☒ Site Inspection IEPA Methods Manual pp.34-39
- ☒ Soil Borings/Well Installation IEPA Methods Manual pp.26-30
- ☒ Public Interviews IEPA Methods Manual p.40
- ☐ Groundwater Flow Determination IEPA Methods Manual p.32
- ☒ Decontamination Procedures IEPA Methods Manual pp.41-56

IV. SAMPLING

I. PROCEDURES (briefly describe the procedures the inspection team will employ in their collection of environmental samples).

All samples will be collected in accordance with the Illinois

Environmental Protection Agency's Site Inspection QAPP. Soil/ sediment samples will be collected with stainless steel spoons.

II. LOCATION OF SAMPLES (identify the number of samples, their type and their location. The attached map should identify these locations).

<u>Sample #</u>	<u>Type</u>	<u>Location</u>
<u>X101-X114</u>	<u>Soil/Sediment</u>	<u>see attached maps</u> <i>(Background yet to be determined)</i>

III. ANALYTICAL SERVICES (identify the laboratory that will perform the analysis of the samples taken at the site, include requested analysis)

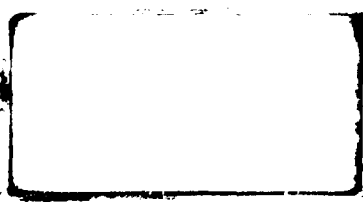
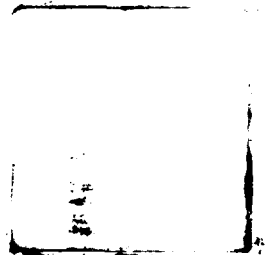
The target compound list will be run on all samples. All organic
samples will be analyzed by IEPA's Springfield lab and all the
inorganics will be analyzed by IEPA's Champaign Lab.

ATTACHMENT 1

RECORDS AND DOCUMENTATION (Check the records or documents that will be generated during this project)

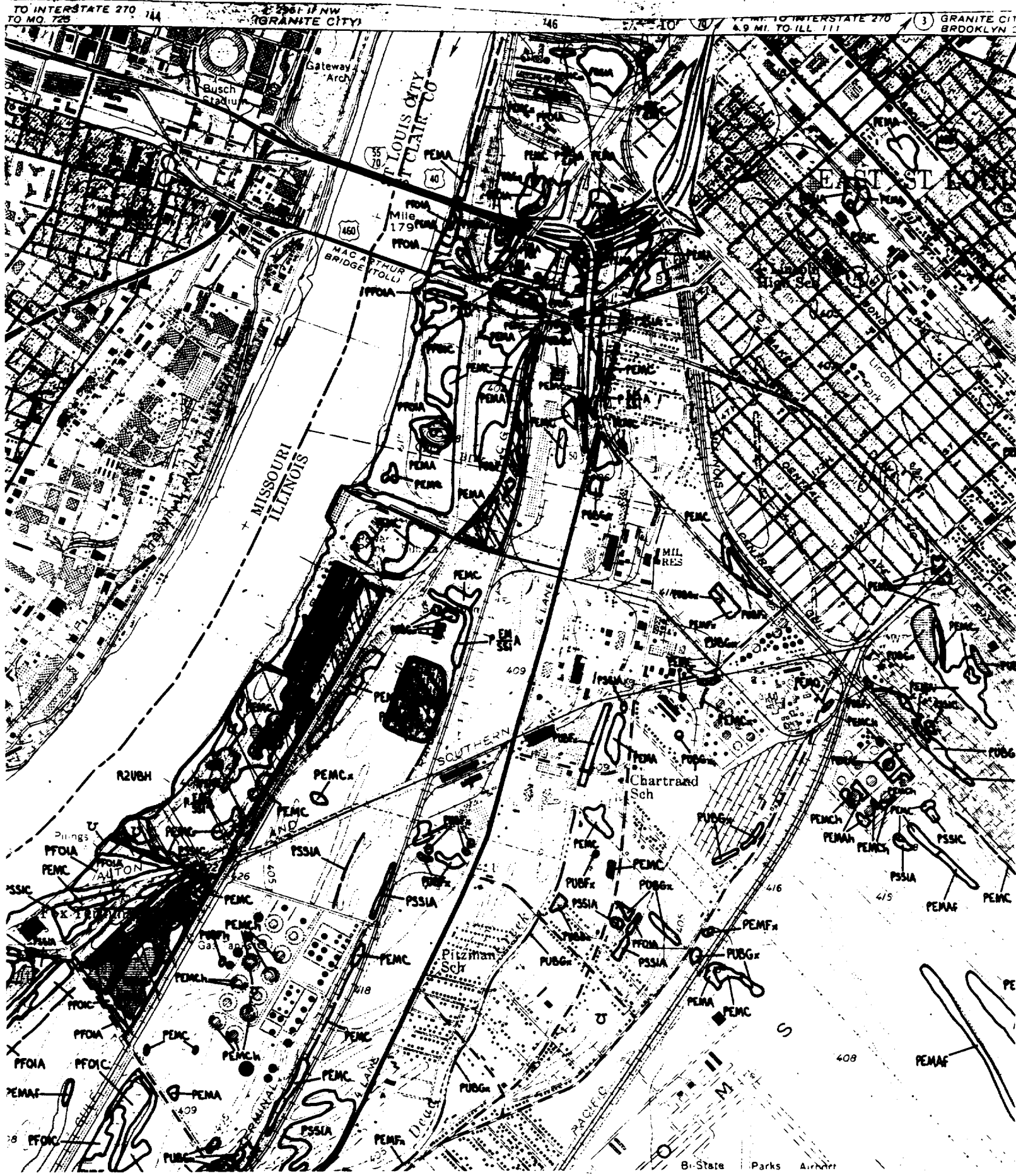
- X Work Plan
- X Safety Plan
- X Sampling Plan
- X Equipment Checklist
- X Log Book
- X Chain of Custody Records
- X Sample Analysis Records
- X Photographs
- X Drilling Logs

- ☒ Correspondence
- ☒ Personal Interview Tapes or Transcripts
- ☒ Maps
- ☒ Instrument Calibration Records
- ☐ Procurement Documents
- ☒ Site Inspection Form (2070-13)
- ☒ HRS Scoring Package



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